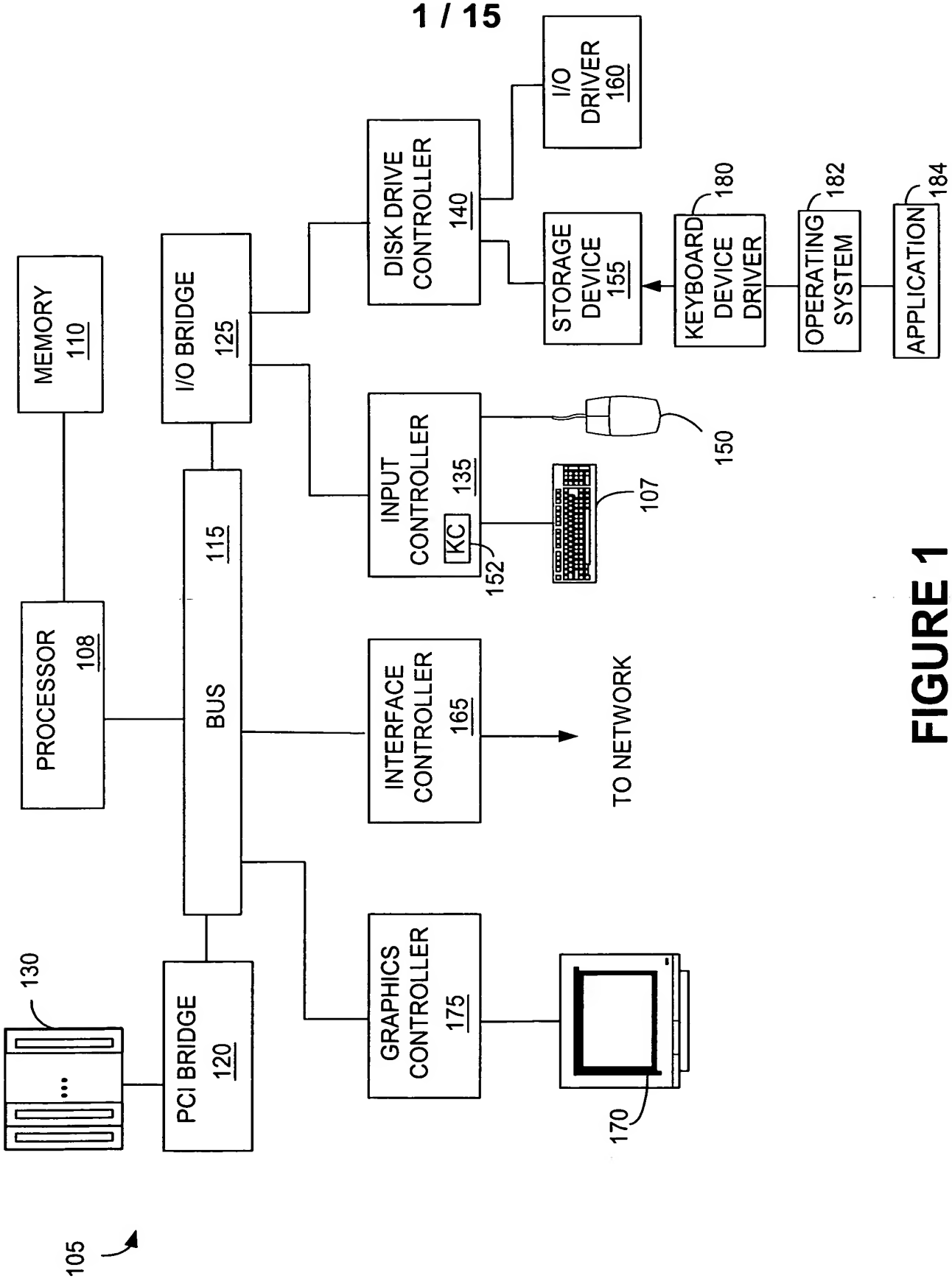
105
130
PCI BRIDGE 120
PROCESSOR 108
MEMORY 110
BUS 115
I/O BRIDGE 125
GRAPHICS CONTROLLER 175
INTERFACE CONTROLLER 165
INPUT CONTROLLER 135
KC
152
150
107
TO NETWORK
170
DISK DRIVE CONTROLLER 140
I/O DRIVER 160
STORAGE DEVICE 155
KEYBOARD DEVICE DRIVER
180
OPERATING SYSTEM
182
APPLICATION
184

FIGURE 1

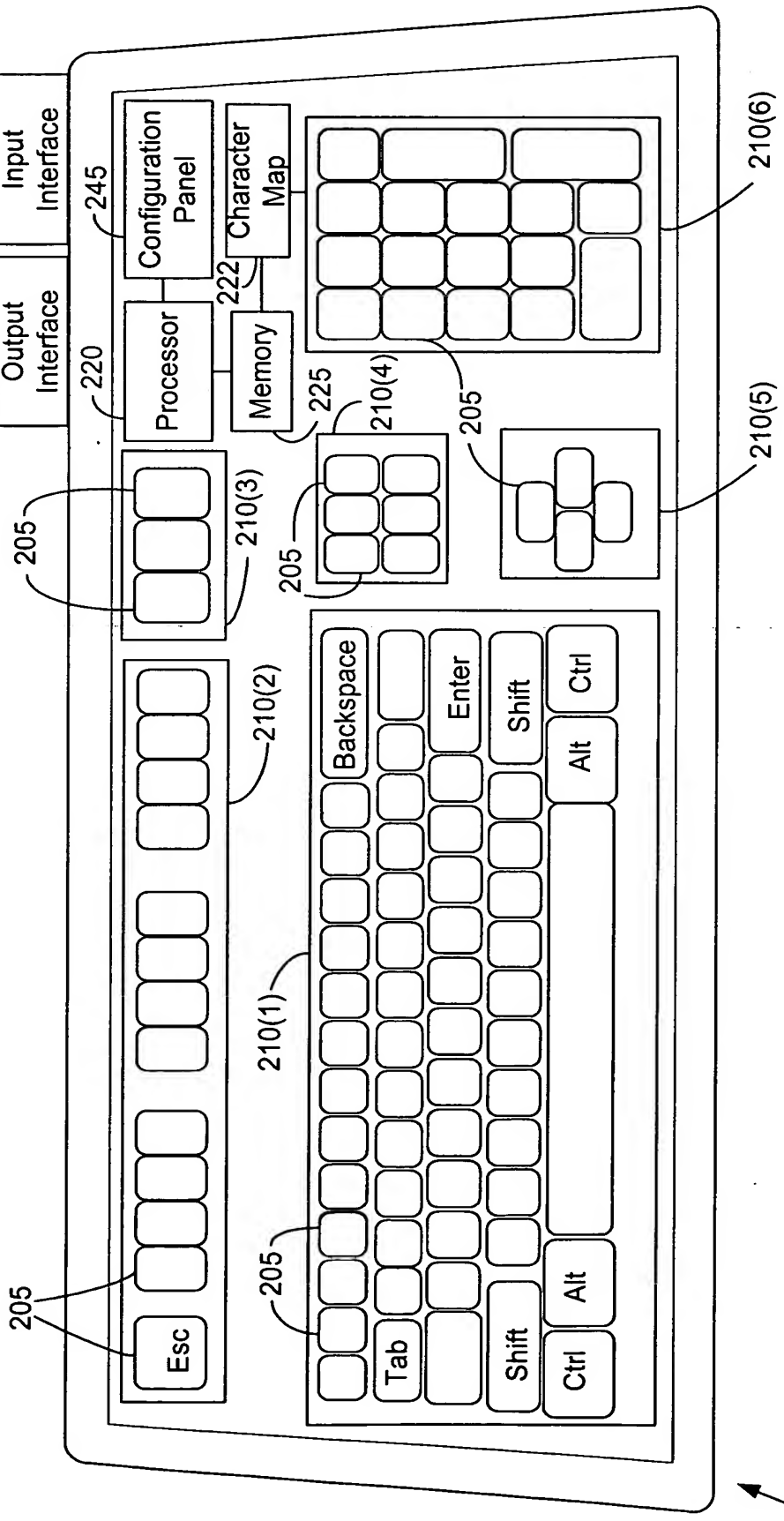
Input Interface
242
Output Interface
240
Configuration Panel
245
Character Map
222
Processor
220
Memory
225
210(1)
210(2)
210(3)
210(4)
210(5)
210(6)
205
Esc
Tab
Backspace
Enter
Shift
Ctrl
Alt
107

FIGURE 2

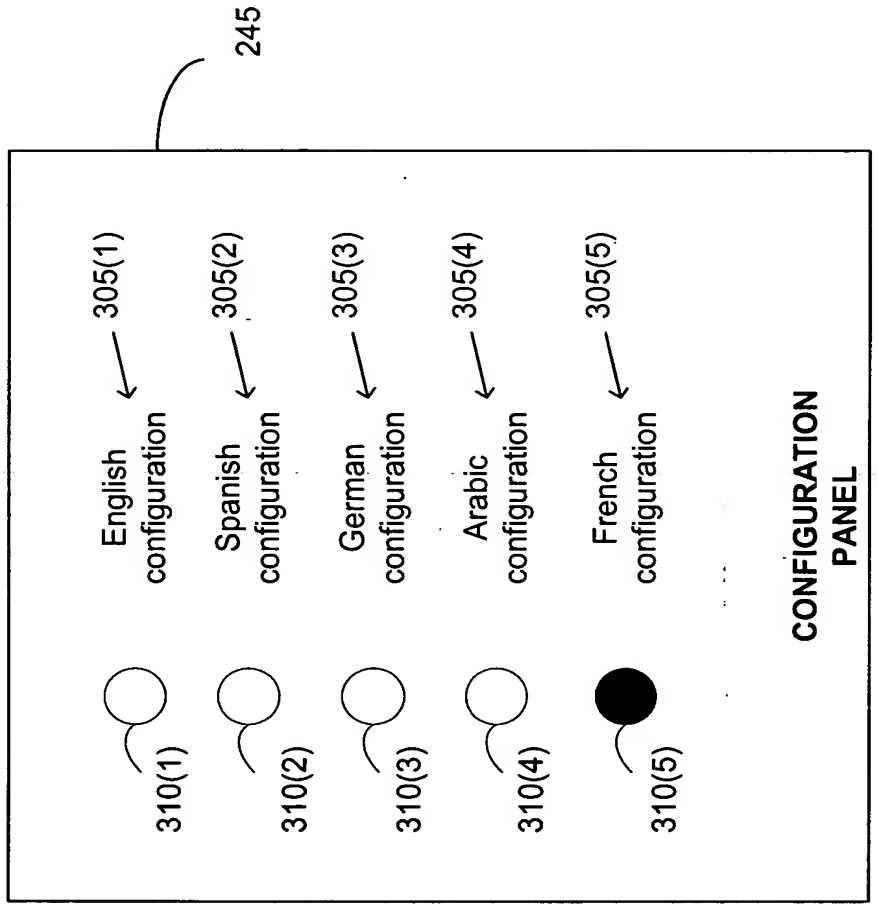
245
CONFIGURATION PANEL
English configuration
305(1)
Spanish configuration
305(2)
German configuration
305(3)
Arabic configuration
305(4)
French configuration
305(5)
310(1)
310(2)
310(3)
310(4)
310(5)

FIGURE 3A

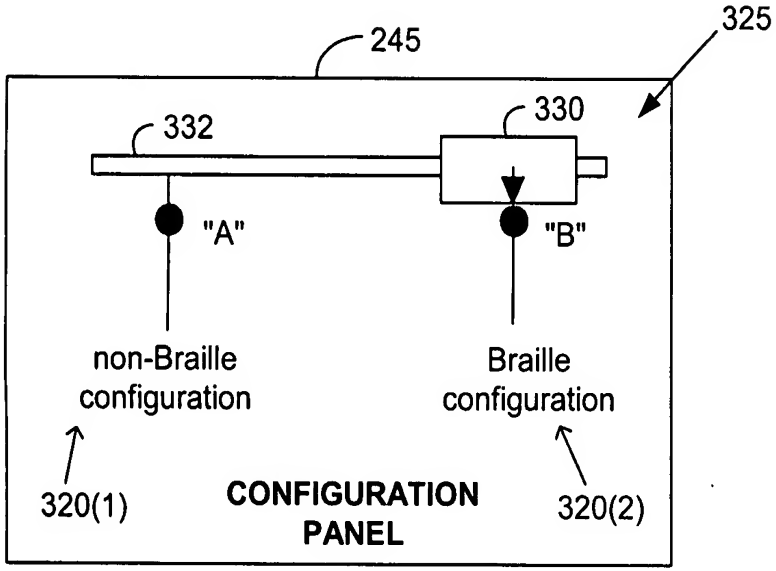

FIGURE 3B

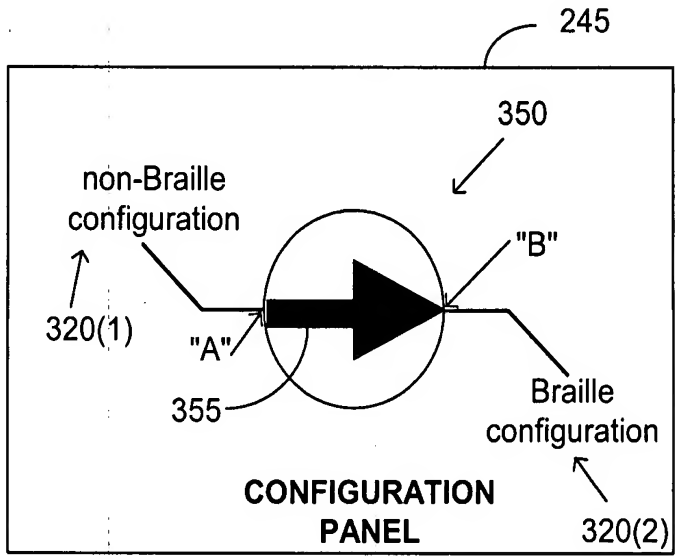

FIGURE 3C

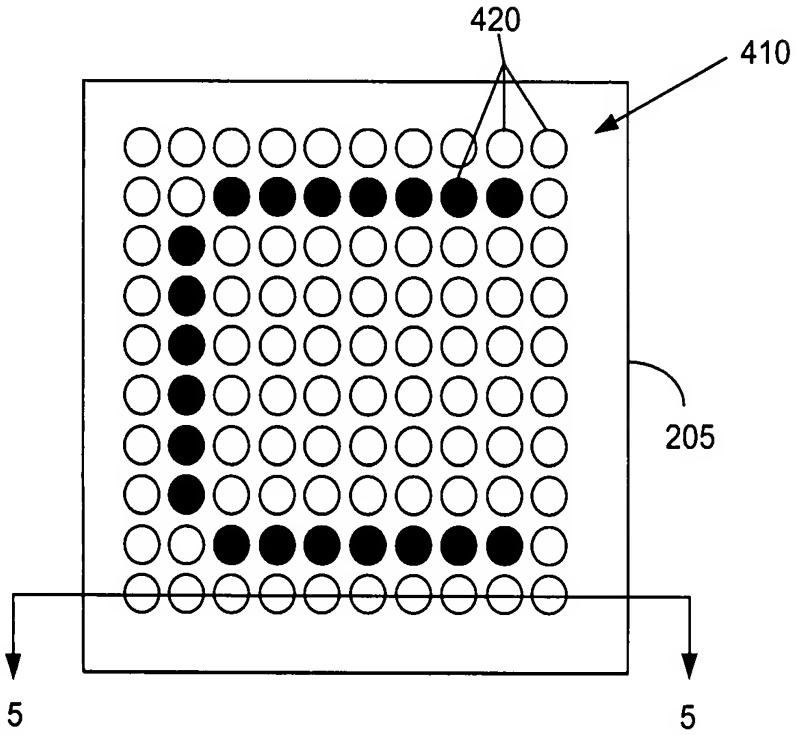

FIGURE 4A

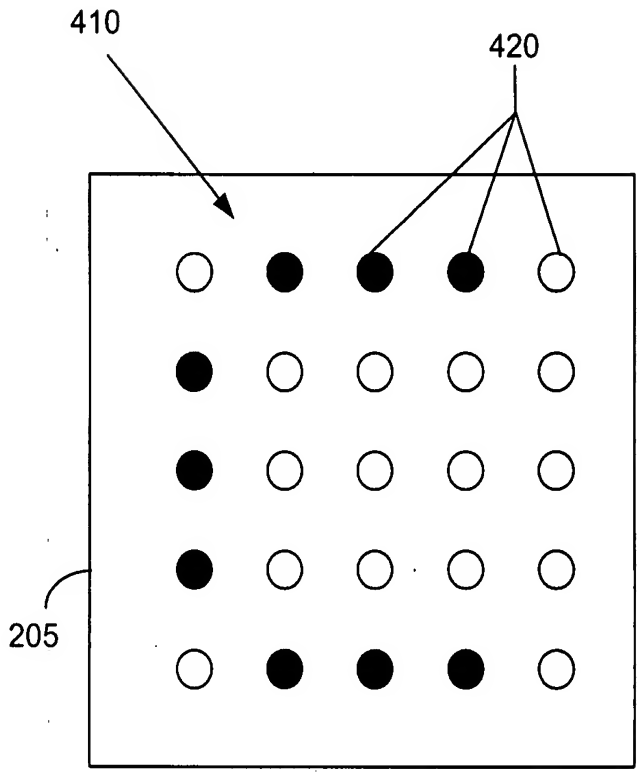

FIGURE 4B

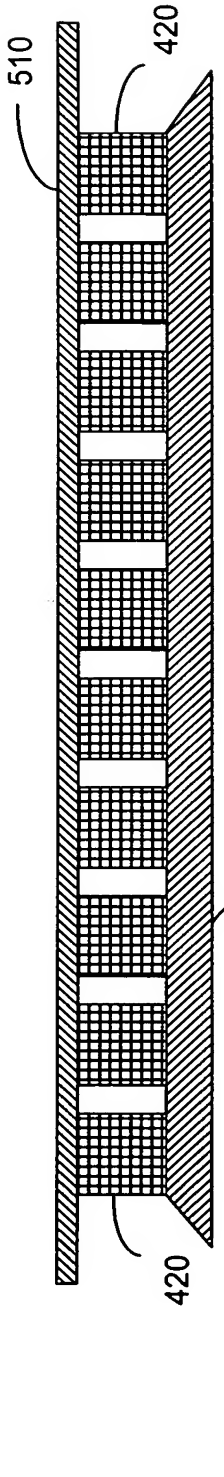

FIGURE 5

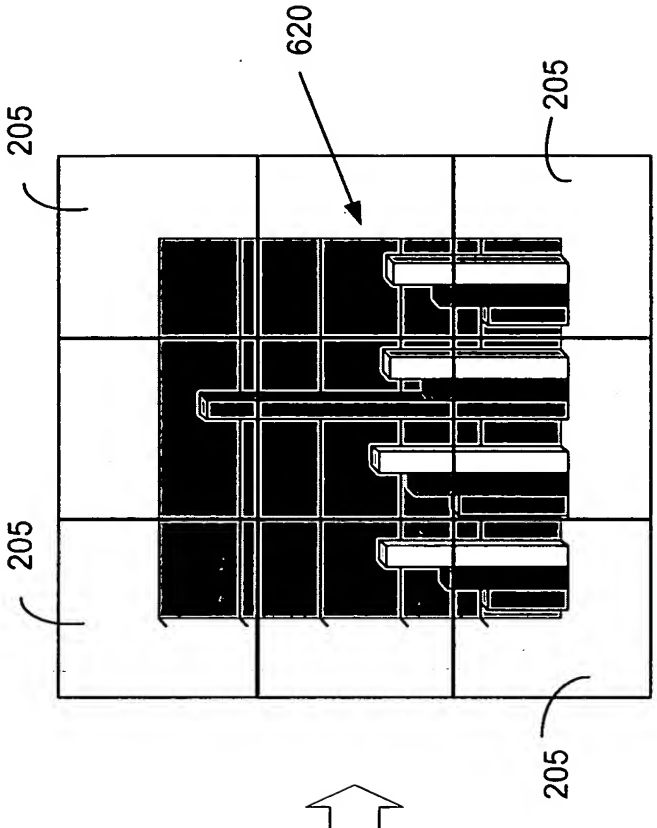

FIGURE 6B

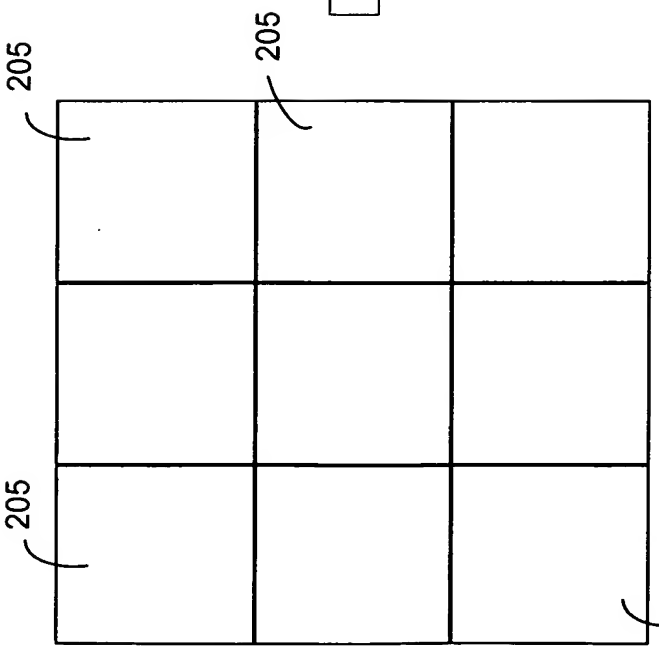

FIGURE 6A

20110-1122001

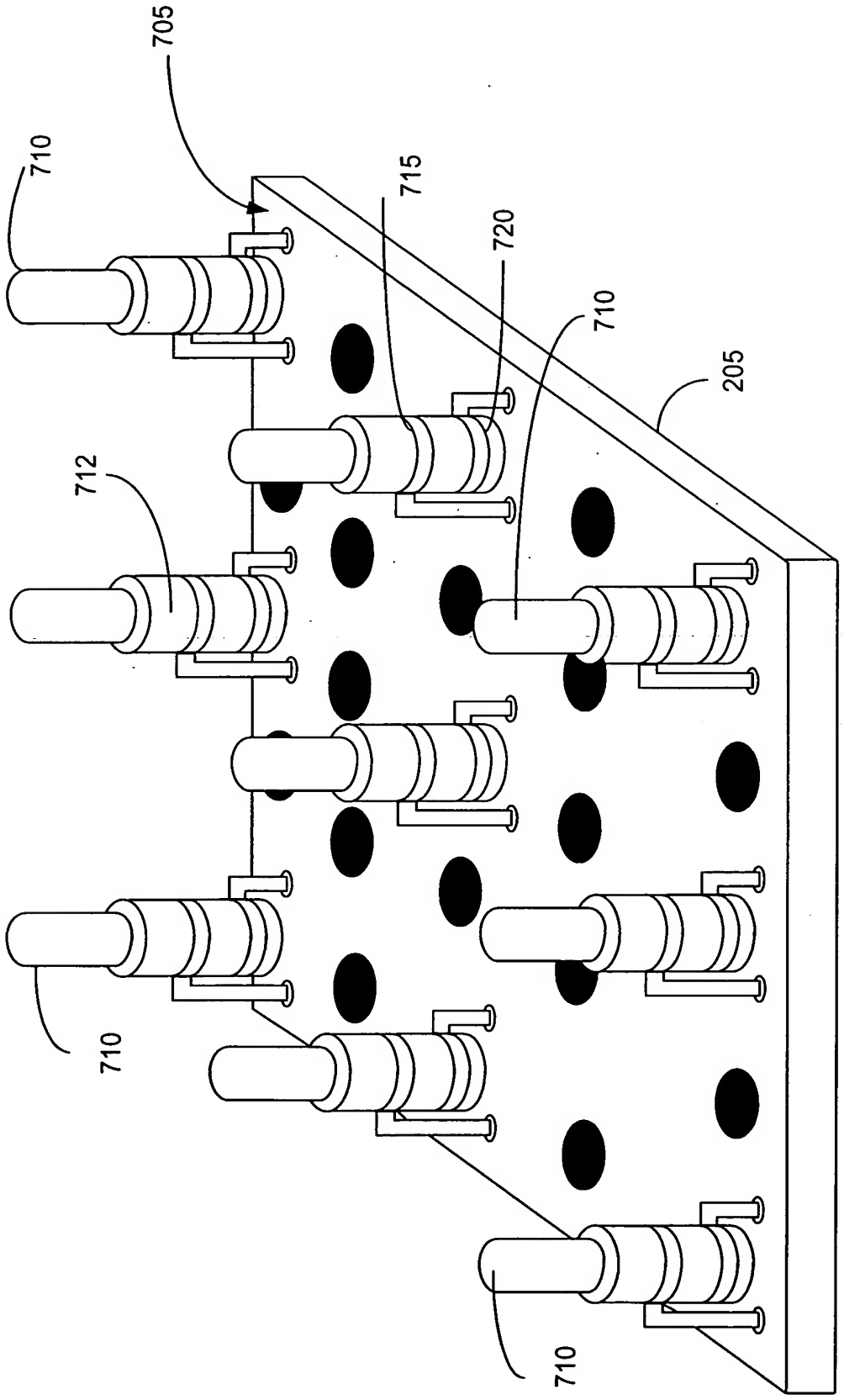

FIGURE 7

20110407225001

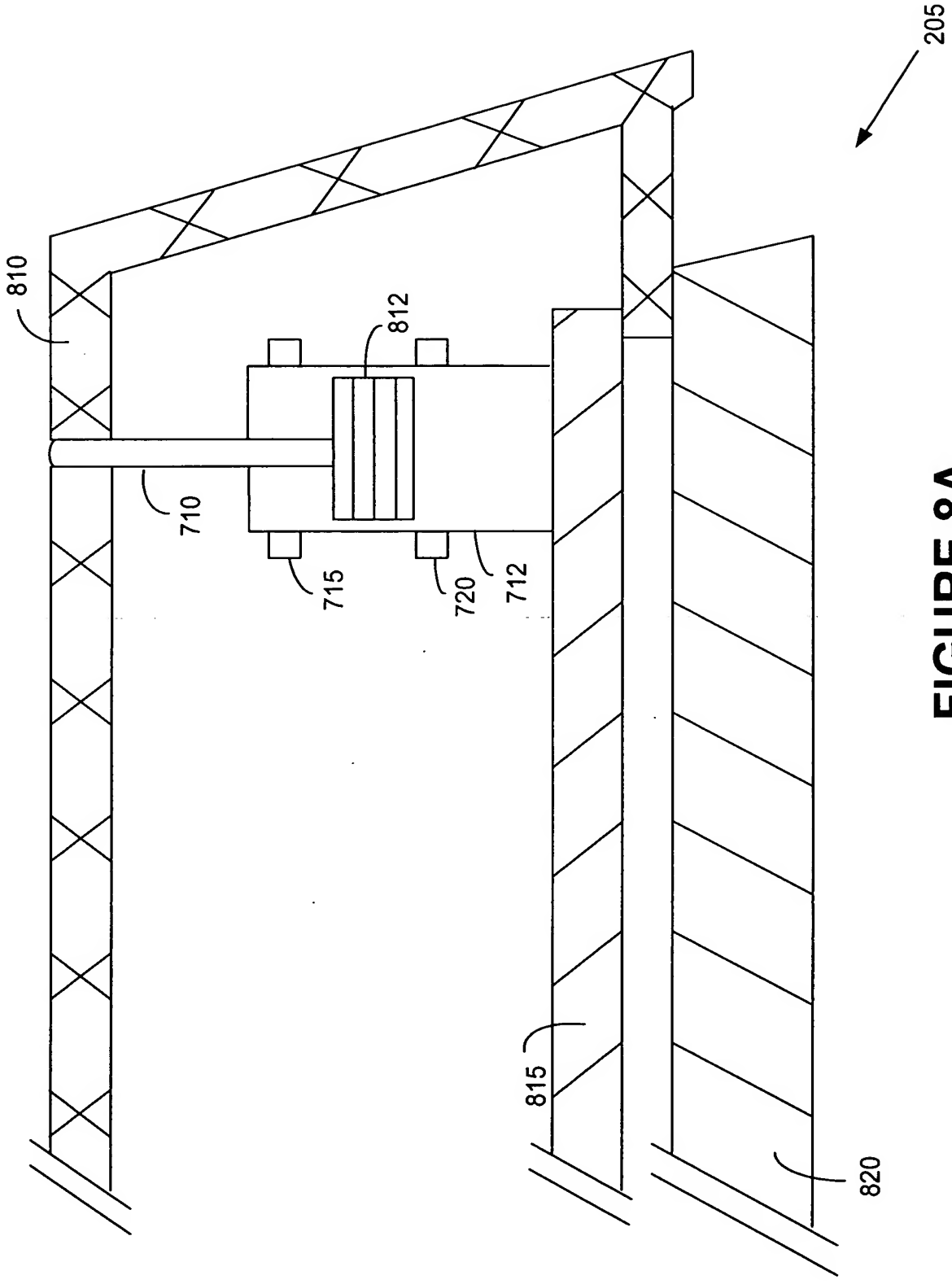

FIGURE 8A

EXPRESS MAIL NO. EL 977 150 705 US

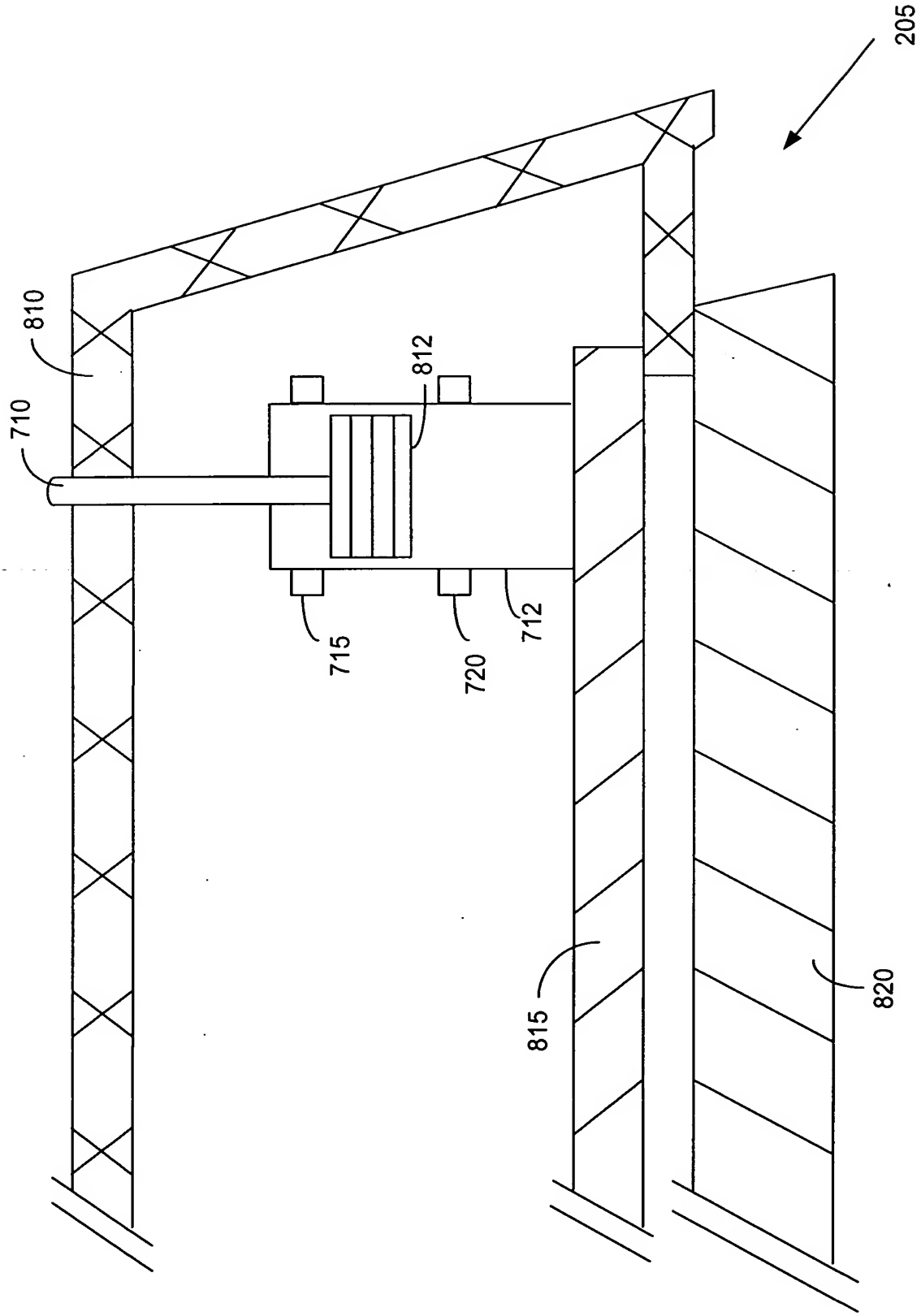

FIGURE 8B

20111-4th-1125007

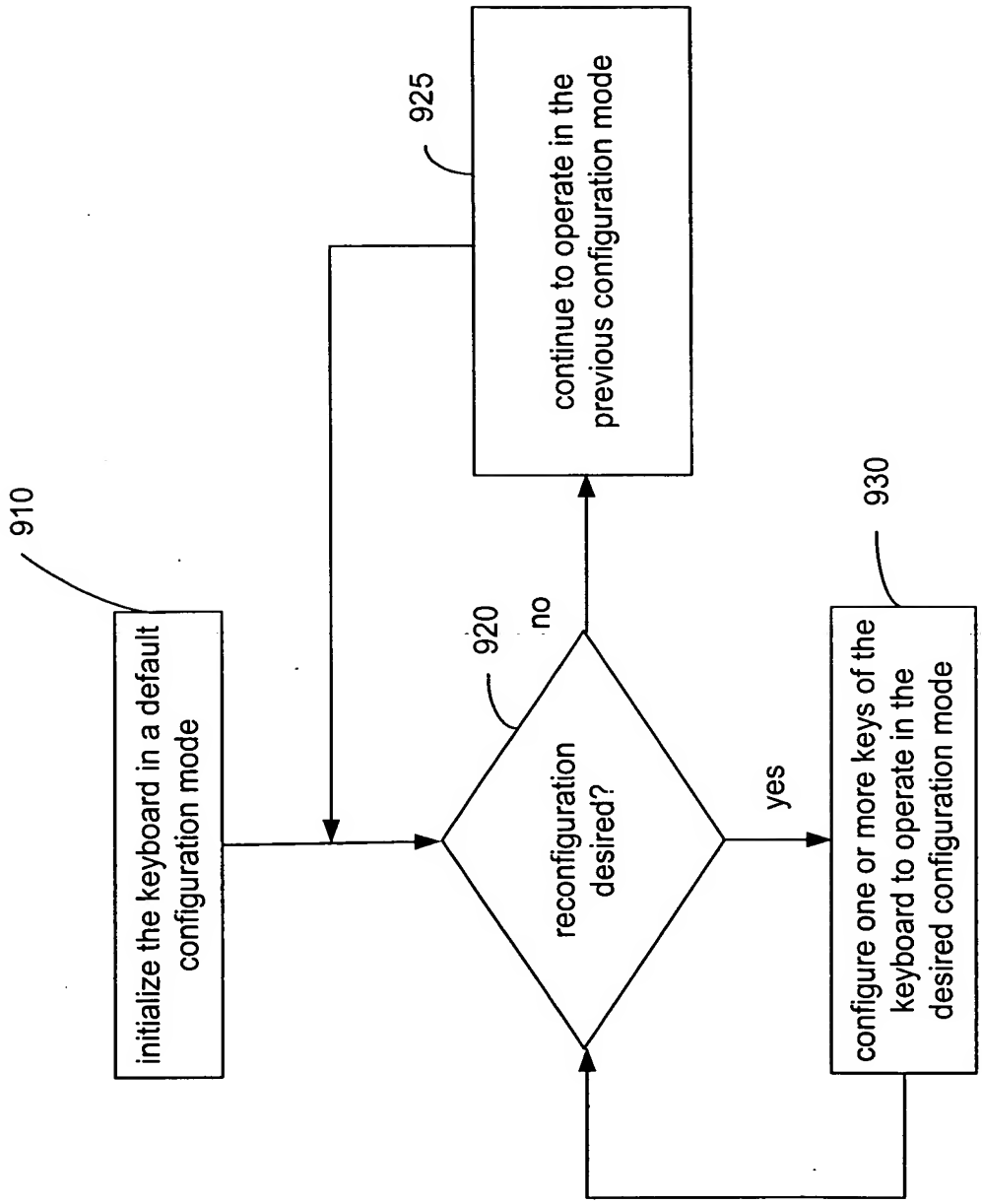

FIGURE 9

DRAFT - Attorney Docket

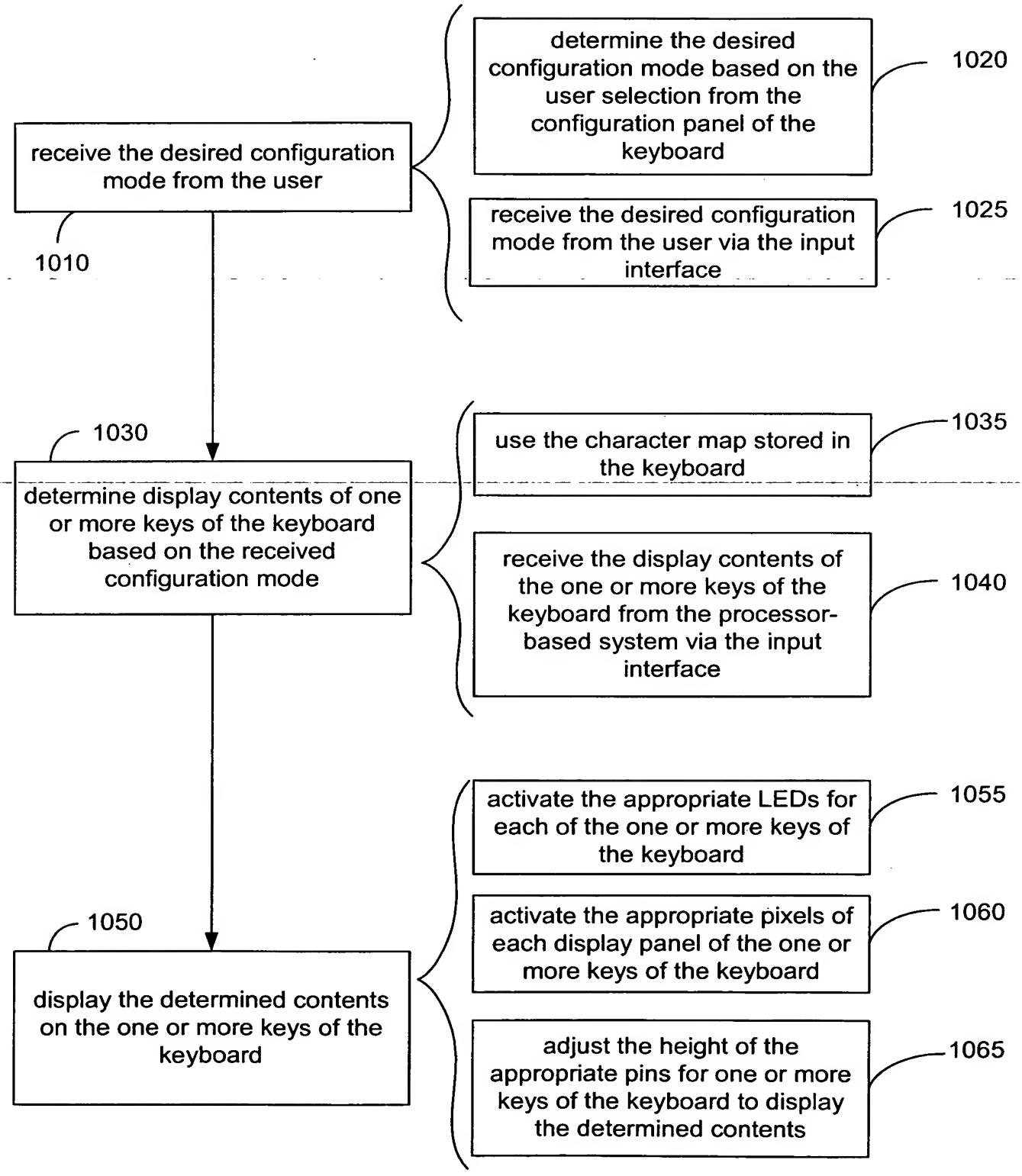
receive the desired configuration mode from the user
1010
determine the desired configuration mode based on the user selection from the configuration panel of the keyboard
1020
receive the desired configuration mode from the user via the input interface
1025
1030
determine display contents of one or more keys of the keyboard based on the received configuration mode
use the character map stored in the keyboard
1035
receive the display contents of the one or more keys of the keyboard from the processor-based system via the input interface
1040
1050
display the determined contents on the one or more keys of the keyboard
activate the appropriate LEDs for each of the one or more keys of the keyboard
1055
activate the appropriate pixels of each display panel of the one or more keys of the keyboard
1060
adjust the height of the appropriate pins for one or more keys of the keyboard to display the determined contents
1065

FIGURE 10

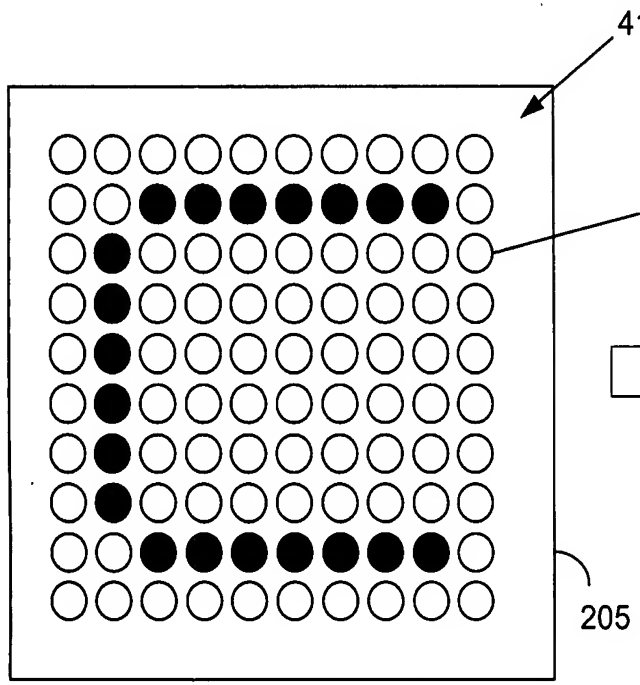

FIGURE 11A

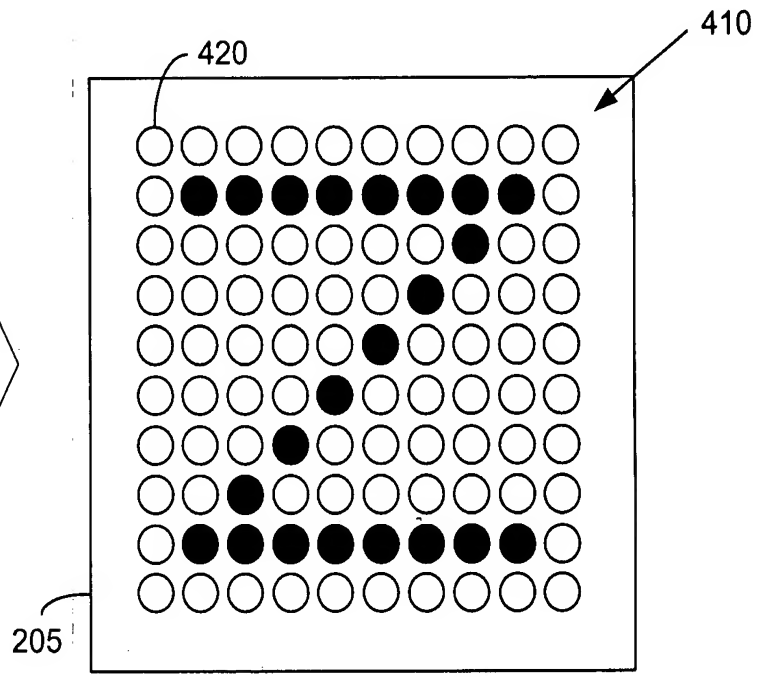

FIGURE 11B

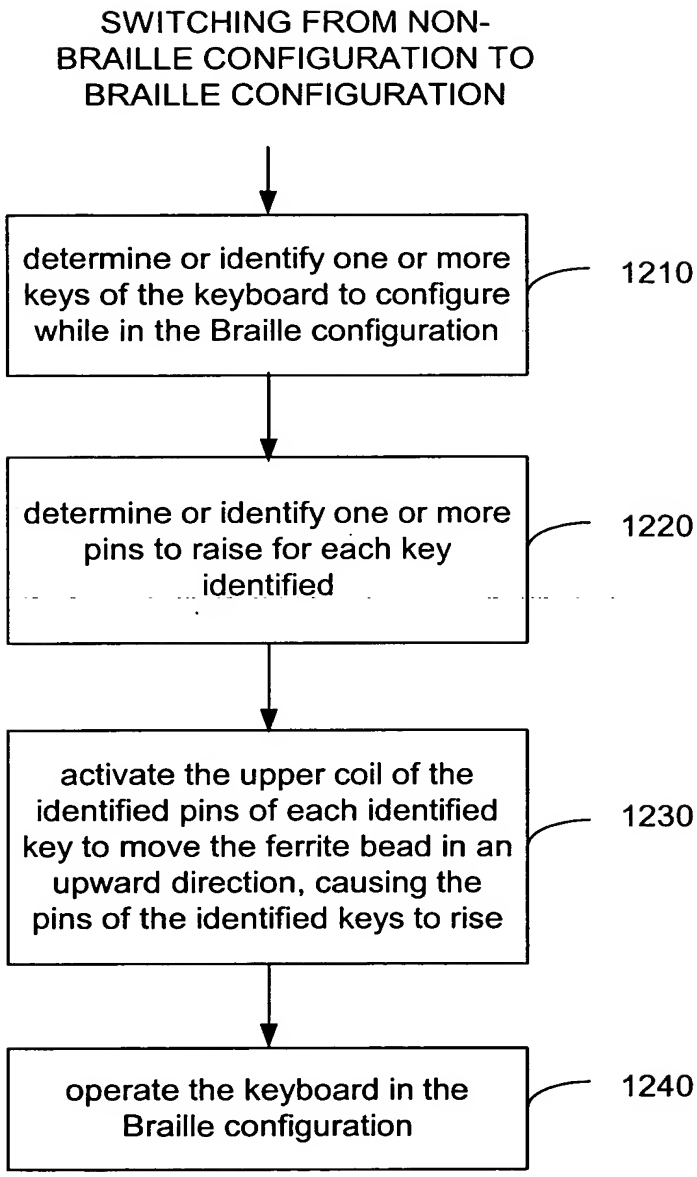
SWITCHING FROM NON-BRAILLE CONFIGURATION TO BRAILLE CONFIGURATION
determine or identify one or more keys of the keyboard to configure while in the Braille configuration
1210
determine or identify one or more pins to raise for each key identified
1220
activate the upper coil of the identified pins of each identified key to move the ferrite bead in an upward direction, causing the pins of the identified keys to rise
1230
operate the keyboard in the Braille configuration
1240

FIGURE 12A

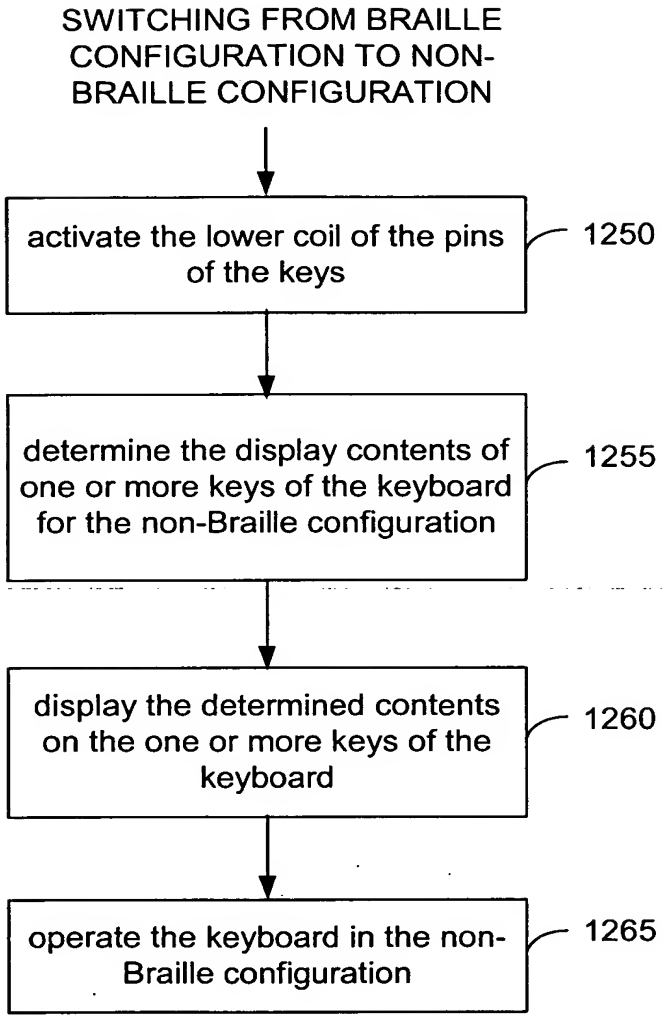
SWITCHING FROM BRAILLE CONFIGURATION TO NON-BRAILLE CONFIGURATION
activate the lower coil of the pins of the keys
1250
determine the display contents of one or more keys of the keyboard for the non-Braille configuration
1255
display the determined contents on the one or more keys of the keyboard
1260
operate the keyboard in the non-Braille configuration
1265

FIGURE 12B